Missouri Department of Natural Resources
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Oil and Gas in Missouri

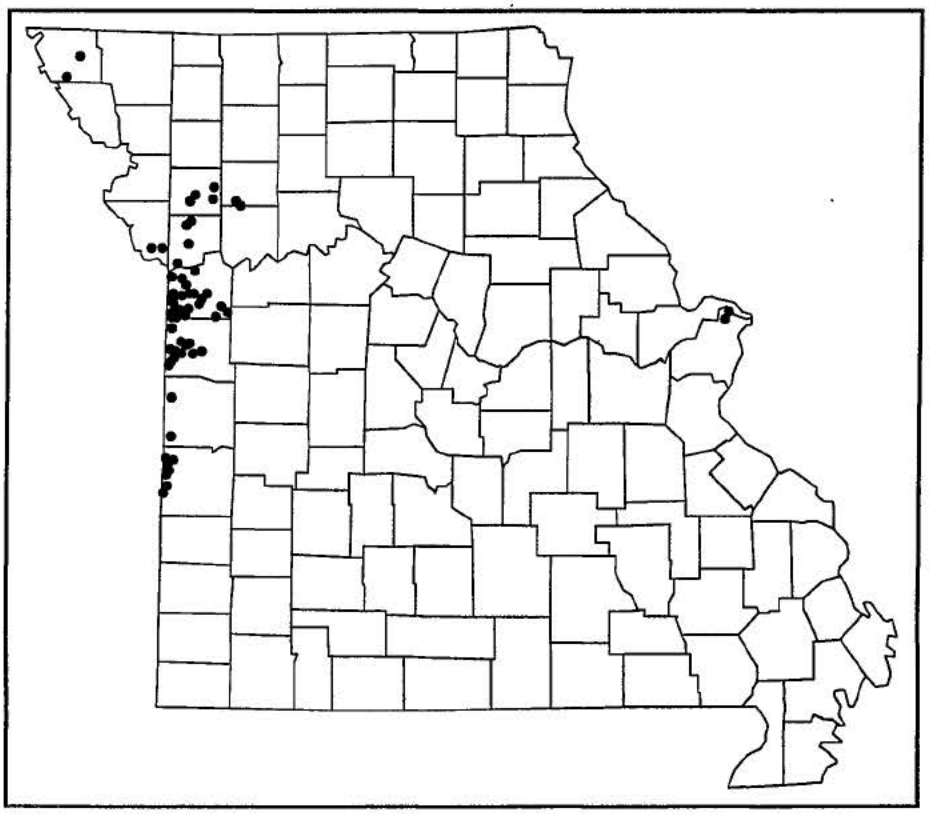
Geological Survey and Resource Assessment Division fact sheet number 19 6/2002

Petroleum, better known as ìcrude oil,î has been used by man since the days of the Egyptians, but has been recognized for its true energy value by the western world only since its discovery in Pennsylvania in 1859.

In early times, the Egyptians used petroleum in embalming and mummification. The Persians used it in a limited way for heating and cooking; and other early civilizations used petroleum as a cement for bricks and tiles in buildings, for lining cisterns and granaries, and to make the hulls of their sailing vessels water tight. But the crude oil used by these early cultures was obtained only from surface seeps, not pumped from deep within the earth as it is today.

In Missouri, oil records date back to the 1860s when the stateís first oil and gas wells were drilled near Kansas City, but little is known about the amount of oil produced by these early wells.

Exploratory drilling for oil and gas has occurred in three parts of the stateóthe northwest at the north end of the Forest City basin, in the Lincoln fold of northeast Missouri, and in the Bootheel or Mississippi embayment area of southeast Missouri.



In 2001, a total of 331 wells in the counties of Atchison, Cass, Jackson, Vernon, and St. Louis produced 90,919 barrels of oil worth an estimated $2 million. There is currently no commercial gas production in Missouri.

Laclede Gas Company currently stores natural gas in the St. Peter Sandstone in the Florissant area at a depth of about 1,500 feet. Propane is stored in mined caverns in the Florissant area (Laclede Gas), Jasper area (Williams Pipeline), and Miller area (Conico). These caverns are generally about 400 feet deep and mined out of shale formations.

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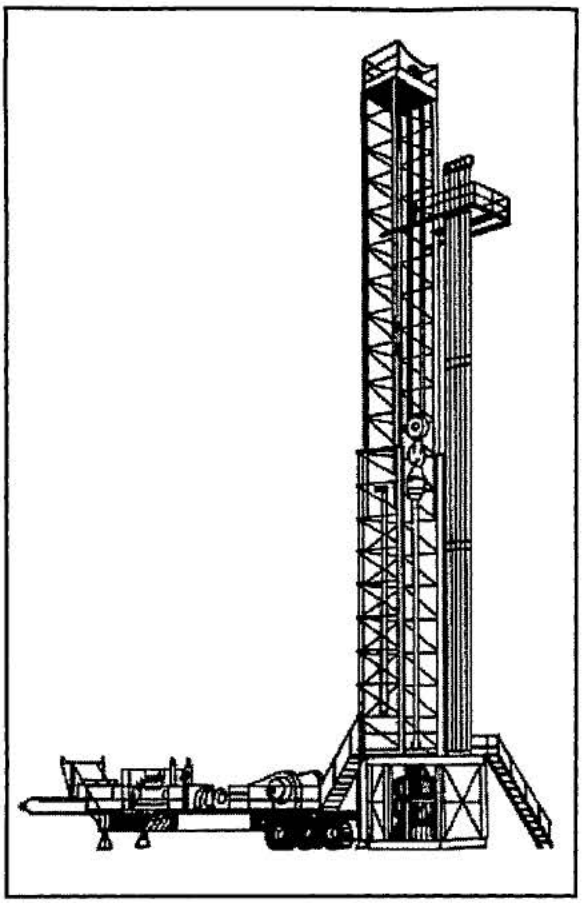
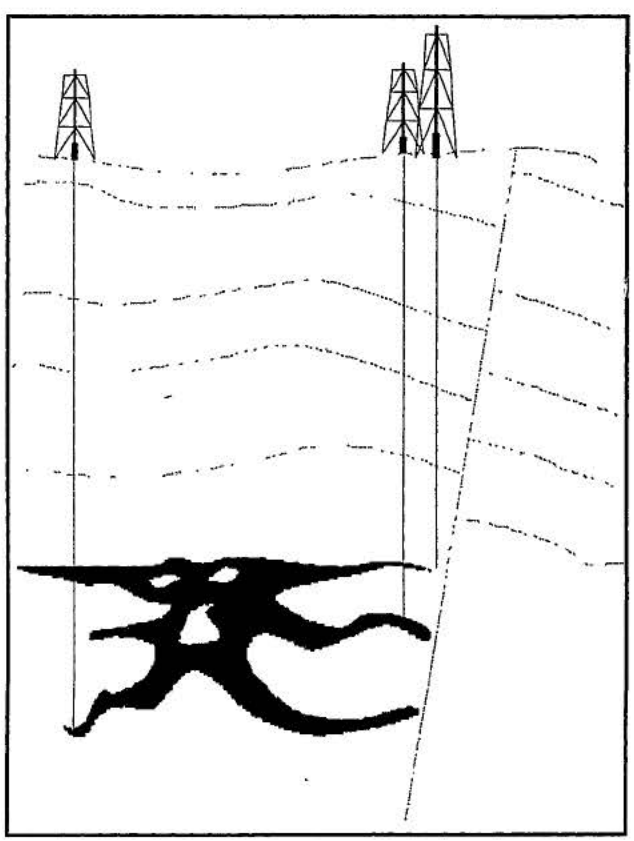


Petroleum is a naturally-occurring mixture of hydrocarbons, usually in the liquid form of ìcrude oil.î Hydrocarbons are organic compounds in a gaseous, liquid or solid state that consist mainly of carbon and hydrogen.

The currently accepted theory for the origin of petroleum suggests that hydrocarbons accumulated from decaying marine life in the sediment beds of ancient, warm, shallow salt seas. The salt water and overlying sediments sealed the organic matter, preventing rapid destruction by oxidation. In time, the build up of heat and pressure brought about a fossilization or distillation process, causing the organic substances to lose their unstable components and leave behind the carbonaceous residue we call petroleum.

The petroleum formed in porous, developing strata such as sands, sandstones, conglomerates, and limestones. Pressures in the earthís crust eventually caused the petroleum to migrate and coagulate in ìpools,î generally trapped underground by impervious strata, and often associated with natural gas.

Missouri does not boast of large, undeveloped deposits of oil and gas, but exploration and speculation continue. Current interest lies in tapping methane gas (natural gas) generated from the natural maturation process of coals. Wells are constructed so as to target gas that is generated by the coals. Several companies are currently developing this potential in Cass and Clinton counties.



ìAt the present time petroleum is being produced on every continent and still new deposits are being sought the world over,î said M.E. Wilson in *The Occurrence of Oil and Gas in Missouri* published by the Missouri Geological Survey in 1922.

Petroleum is the base for many petrochemicals important to modern technology. It is refined to create gasoline, kerosene, diesel oil, fuel oil, lubricating oil and asphalt.

The continuously increasing demand for oil and gas provokes interest in its origin, location and use. Today, more than a century after petroleum products became so important to manís standard of living, scientists still profound new theories for the origin of this elusive earth substance.